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[54] PHOTOCATAYST

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[57] ABSTRACT

PROBLEM TO BE SOLVED: To prevent the decrease in the crystallinity and orientation of a photocatalyst and to improve catalytic activity by mixing metal or metal oxide which improves the photocatalytic activity into the photocatalyst of metal oxide indicating phtocatalytic activity.

SOLUTION: A photocatalyst which is used for the purification water and air, deodorization, etc., is prepared by mixing metal or metal oxide which improves the phtocatalytic activity of metal oxide into metal oxide indicating photocatalytic activity. In this process, the photocatalyst of a metal oxide film is formed preferably by sputtering using a metal oxide target in which the metal or the metal oxide which improves the photocatalytic activity of the metal oxide is incorporated into the metal oxide indicating photocatalytic activity. As the metal oxide indicating photocatalytic activity, for example, TiO₂, ZnO, WO₃, etc., are used appropriately, and as the metal or the metal oxide which improves the photocatalytic activity of the metal oxide, for example, platinum, palladium, nickel, copper, tin, tin oxide, etc., are named.

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